



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND
INTERFERENCES

In re Application of: Gandhi, et al.

Application No.: 10/632,065

Filed: July 31, 2003

Examiner: Jamie Michelle Holliday

Docket No.: LUTZ 2 00544

Case No.: Gandhi 10-16-15-24

For: A METHOD OF CONTROLLING OVERLOAD OVER THE REVERSE LINK

MAIL STOP APPEAL BRIEF – PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Dear Sir:

Applicants transmit herewith one (1) originally signed copy of a REPLY TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF; and, one (1) originally signed copy of a PETITION FOR THREE-MONTH EXTENSION OF TIME for the above-identified patent application.

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Respectfully submitted,

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August 16, 2007
Date

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR(S) : Gandhi, et al.

TITLE : **A METHOD OF CONTROLLING
OVERLOAD OVER THE REVERSE
LINK**

APPLICATION NO. : 10/632,065

FILED : July 31, 2003

CONFIRMATION NO. : 2044

EXAMINER : Jamie Michelle Holliday

ART UNIT : 2617

NOTIFICATION OF NON-COMPLIANT :
APPEAL BRIEF MAILED April 17, 2007

ATTORNEY DOCKET NO. : LUTZ 2 00544
Case Name: Gandhi 10-16-15-24

**REPLY TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF
SUMMARY OF CLAIMED SUBJECT MATTER
AS REQUIRED BY 37 C.F.R. §41.37(c)(1)(V)**

Mail Stop Appeal Brief - Patents
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P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Responsive to the Notification of Non-Compliant Appeal Brief that was mailed April 17, 2007 regarding the above-identified patent application, the Applicants are submitting this paper providing a summary of the claimed subject matter as required by 37 C.F.R. §41.37(c)(1)(v).

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Date: <i>August 16, 2007</i>	Name: Iris E. Weber

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

As recited in independent claim 1, the present application is directed toward a method (e.g., FIG. 1, 10; page 4, lines 1-10; page 6, line 1 - page 8, line 22) of wireless communication comprising: evaluating (e.g., FIG. 1, 30; page 7, line 1 - page 8, line 2; page 15, line 22 - page 17, line 17) a reverse link loading by examining at least two resources (e.g., page 6, line 22 - page 8, line 2) within a first time period and broadcasting (e.g., FIG. 1, 40; page 8, line 3 - page 9, line 15; page 9, line 29 - page 10, line 13; page 15, line 10 - page 19, line 15) an availability of resources message in response to the evaluated reverse link loading.

Independent claim 13 recites a wireless communication system (e.g., FIG. 2, 50; FIG. 3, 100; page 9, line 16 - page 13, line 24) comprising: a detector (e.g., FIG. 2, 64; FIG. 3, 135; page 9, line 22 - page 10, line 13; page 10, line 19 - page 11, line 2; page 11, lines 11-17; page 12, line 21 - page 13, line 2; page 15, line 22 - page 17, line 17) for evaluating a reverse link loading by examining at least two resources within a first time period and a controller (e.g., FIG. 2, 66; FIG. 3, 140; page 11, line 3 - page 12, line 4; page 12, lines 21-28; page 15, lines 10-21; page 17, line 18 - page 19, line 15) for controlling the reverse link loading by broadcasting an availability of resources message in response to the evaluated reverse link loading.

Independent claim 21 recites a method (e.g., FIG. 1, 10; FIG. 6, 300) of wireless communication over a reverse link comprising: determining (e.g., FIG. 1, 20, 30; FIG. 6, 310; page 6, line 12 - page 8, line 2; page 13, line 25 - page 14, line 5; page 15, line 22 - page 17, line 17) a loading on the reverse link; managing (e.g., FIG. 6, 320; FIG. 1, 40; page 14, lines 6-23; page 17, line 18 - page 19, line 15) the reverse link loading in response to the determined reverse link loading by at least one of controlling a traffic channel data rate and controlling a number of active connections; and broadcasting (e.g., FIG. 1, 40; FIG. 6, 320; page 8, line 3 - page 10, line 13; page 15, lines 10-21) an availability of resources message in response to the determined reverse link loading.

Dependent claim 2 indicates that examining (of claim 1) comprises at least one of examining at least two resources in use (e.g., page 6, line 15) and examining the at least two resources left over (page 6, line 15).

Claim 3 indicates that the at least two resources that are examined include at least one (of) a sector loading, total interference, received signal strength indication rise, per-leg and per-call frame error rate, physical channel erasure statistics and distributions, filtered

loading estimate, transmit power and power control outer-loop set point compared to received E_{cp}/N_t (e.g., page 6, lines 15-21; page 9, line 25 - page 10, line 6).

Claim 4 indicates that the step of evaluating a reverse link loading can comprise computing the sector loading by measuring energy in a pilot signal over total noise, DRC values, channel gain and used Walsh code space (e.g., page 7, lines 1-6) and that the received signal strength indication rise corresponds with a total received power at a sector, with a noise floor and with a threshold that varies to minimize adverse control reactions (e.g., page 7, line 7 - page 8, line 2).

Claim 5 recites sampling a received signal strength indication (e.g., page 14, lines 1-3) and calculating a noise floor and the received signal strength indication rise in response to the sampling received the signal strength indication (e.g., page 14, lines 3-5).

Claim 6 recites changing a longest idle user to at least one of inactive status and dormant status if a sector state is above a slow control threshold (e.g., page 19, lines 1-8).

Claim 7 recites inactivating a user with a maximum number of bites transferred if all users are active (e.g., page 19, lines 4-7) and changing an access resistance timer if all users are not at least one of active idle and having a maximum number of bites transferred (e.g., page 19, lines 4-15).

Claim 8 recites wherein the access resistance timer determines if subsequent access attempts by a user after a previous attempt failed (e.g., page 19, lines 11-13).

Claim 9 recites the availability of resources message corresponds with at least one of an overload condition, increasing a number of active connections, maintaining the number of active connections, decreasing the number of active connections, increasing an available transmit rate, maintaining the available transmit rate and decreasing the available transmit rate (e.g., Abstract; FIG. 6, 340; page 4, lines 11-22; page 8, lines 8-15; page 14, lines 6-13).

Claim 10 recites the availability of resources message comprises a reverse activity bit (e.g., page 8, lines 3-7; page 15, lines 10-21).

Claim 11 recites controlling the reverse link by at least one of managing a traffic channel in response to an average of the received signal strength indication rise and the filtered load estimate (e.g., page 8, lines 16-22; page 11, lines 11-17; page 14, lines 14-19) and managing the number of active connections in response to the average of the received signal strength indication rise in the filtered loading estimate (e.g., page 4, line 23 - page 5, line 2; page 8, lines 16-22; page 11, lines 11-17).

Claim 12 recites determining an available transmit rate in response to examining the at least two resources associated with the reverse link within a second time period, the second time period being an order of magnitude greater than the first time period (e.g., page 9, line 22 - page 10, line 6).

Claim 14 recites the detector (of claim 13) performs at least one of examining the resources in use within the first time period and examining the resources left over within the first time period (e.g., Abstract; FIG. 1, 30; page 4, lines 1-22; page 6, lines 12-28; page 9, line 22 - page 10, line 13) and the at least two resources examined comprise at least one of a sector loading, total interference, received signal strength indication rise, local and global frame error rate and distribution, filtered loading estimate, transmit power, received E_{cp}/N_t , received E_b/N_t and power control outer loop set point (e.g., page 6, lines 15-21; page 9, line 25 - page 10, line 6; page 17, lines 1-17).

Claim 15 recites the detector computes the sector loading by measuring energy in a pilot signal over total noise, DRC values, channel gain and used Walsh code space (e.g., page 7, lines 1-6) and the received signal strength indication rise corresponds with a total received power at a sector, with a noise floor and with a threshold that varies to minimize adverse control reactions (e.g., page 7, line 7 - page 8, line 2).

Claim 16 recites a sampler for sampling a received signal strength indication (e.g., FIG. 2, 68; page 10, lines 14-18) and a calculator (e.g., FIG. 2, 70) for calculating a noise floor and the received signal indication strength rise in response to the sampling received signal strength indication (e.g., page 10, lines 14-18).

Claim 17 recites the availability of resources message corresponds with at least one of an overload condition, increasing a number of active connections, decreasing the number of active connections, increasing an available transmit rate, maintaining the available transmit rate and decreasing the available transmit rate (e.g., Abstract; FIG. 6, 340; page 4, lines 11-22; page 8, lines 8-15; page 14, lines 6-13).

Claim 18 recites the availability of resources message comprises a reverse activity bit (e.g., page 8, lines 3-7; page 15, lines 10-21).

Claim 19 recites a controller (e.g., FIG. 2, 66; FIG. 3, 140) for managing the reverse link by at least one of controlling a traffic channel transmission rate in response to a relatively short-term average of the received signal strength indication rise and the filtered loading estimate (e.g., page 4, lines 1-10; page 5, lines 26-28; page 8, lines 8-15; page 8, line 23 - page 9, line 15; page 11, line 18 - page 12, line 4; page 13, lines 3-9; page 17, lines 18-21) and controlling the number of active connections in response to a relatively

long-term average of the received signal strength indication rise and a filtered loading estimate (e.g., FIG. 6, 340; page 4, lines 1-10; page 4, lines 18-22; page 4, line 27 - page 5, line 2; page 8, lines 8-15; page 8, lines 20-22; page 8, line 27 - page 9, line 3; page 11, lines 11-15; page 11, lines 18-25; page 12, lines 23-28; page 14, lines 6-19; page 17, lines 18-21).

Claim 20 recites the detector determines an available transmit rate in response to examining the at least two resources associated with the reverse link within a second time period, the second time period being an order of magnitude greater than the first time period (e.g., page 9, line 22 - page 10, line 6).

Claim 23 recites the step of controlling a traffic channel (of claim 21) comprises a relatively faster control of the traffic channel and the step of controlling a number of active connections comprises a relatively slower control (e.g., page 4, lines 1-10; page 4, lines 18-22; page 4, line 27 - page 5, line 2; page 5, lines 26-28; page 8, lines 8-15; page 8, lines 20-22; page 8, line 23 - page 9, line 15; page 11, lines 11-15; page 11, line 18 - page 12, line 4; page 12, lines 23-28; page 8, line 27 - page 9, line 3; page 13, lines 3-9; page 14, lines 6-19; page 17, lines 18-21; FIG. 6, 340; page 17, lines 18-21).

Claim 25 recites sampling the received signal strength indication (e.g., FIG. 2, 68; page 10, lines 14-18) and calculating a noise floor and the rise in the signal strength indication in response to the sampling of the received signal strength indication (e.g., page 10, lines 14-18).

Respectfully submitted,

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